

EXHIBIT R

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Iyer, et al.	
Application No.: 12/189,725	Art Unit: 2841
Filed: 8/11/2008	
Title: Smartconnect Flash Card Adapter	Examiner: Levi, Dameon E.
Attorney Docket No.: 76706-200109	

Commissioner for Patents
Mail Stop: Amendment
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 CFR 1.111

Dear Sir:

In response to the Office Action of March 9, 2009, please consider the following remarks.

A listing of the claims begins on page 2.

Applicants' remarks begin on page 4.

Claims:

1. (Original) Apparatus comprising:
 - a housing having a surface;
 - a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;
 - a set of signal lines connected to said contact pins;
 - means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.
2. (Original) Apparatus comprising:
 - a housing having a port and a surface;
 - a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;
 - a set of signal lines connected to a controller;
 - interconnection means connecting said signal lines to said one or more contact pins; and
 - means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the identification of the type of memory card inserted into said port.

3. (Original) Apparatus according to claim 2 where said means for mapping comprises a controller determining the type of memory card inserted into said port.

4. (Original) Apparatus according to claim 2 wherein said interconnection means is selected from a group consisting of simple wires, flat cables, printed circuit board interconnections, or wiring traces.

5. (Original) Apparatus according to claim 4 wherein said the number of said signal lines is fewer than then number of contact pins.

Electronic Acknowledgement Receipt

EFS ID:	5485396
Application Number:	12189725
International Application Number:	
Confirmation Number:	7524
Title of Invention:	SMARTCONNECT FLASH CARD ADAPTER
First Named Inventor/Applicant Name:	Sreenath Mambakkam
Customer Number:	73481
Filer:	Edward Peter Heller/Mark Salvatore
Filer Authorized By:	Edward Peter Heller
Attorney Docket Number:	76706-200109
Receipt Date:	09-JUN-2009
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Application Type:	Utility under 35 USC 111(a)

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		76706-200109-OR1.pdf	172807 a521a48eada83bfcdcd494e3f6353c0f84b2fee	yes	12

Multipart Description/PDF files in .zip description

	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	3
	Applicant Arguments/Remarks Made in an Amendment	4	12

Warnings:**Information:****Total Files Size (in bytes):**

172807

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS

The examiner rejected claims 1-5, under 35 USC §102(b), as been anticipated by US patent number 6,402,558 to Hung-Ju, et al., a patent which issued June 11, 2002, and filed March 13, 2001. Applicants respectfully traverse. Hung-Ju is not effective prior art against the claims of the instant application. The claims of the instant application are fully supported in parent US 6,859,369. US'369 was filed as Application No. 10/064,966 on September 4, 2002. This filing date is less than one year after Hung-Ju's publication date. As such, applicants are entitled to show prior invention with respect to the subject matter of Hung-Ju under the principles of *In re Stempel*, 241 F.2d 755, 113 USPQ 77 (CCPA 1957). The critical limitations of Hung-Ju are disclosed parent US 6,438,638. US'638 was filed as Application No. 09/610,904, on July 6, 2000. July 6, 2000 is prior to the earliest effective date of Hung-Ju.

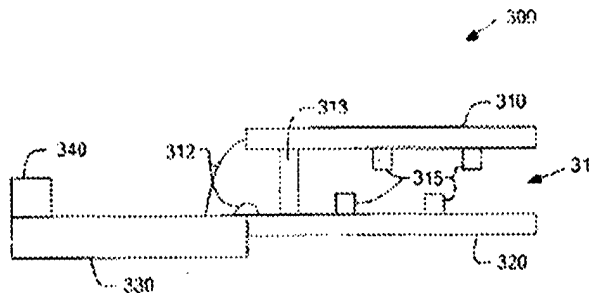
Turning first to claim 1 and US'369, support for the claim is as follows:

Claim 1. Apparatus comprising:

a housing having a surface;

See, e.g., Fig. 3, planar members 310, 320.¹ These have surfaces.

See, 4:59-63.



¹ The citations are to the issued patent. The specification US'369 was unamended from Application US'966.

a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;

See, e.g., Fig. 3, contacts 315. The contact pins “electrically couple” to corresponding contacts on a media card inserted. 4:63-64. The respective card types and the contacts they interface with are described at 2:9-16.

a set of signal lines connected to said contact pins;

Fig. 4 is a table of the connector pins (left column) and the contact pins to which they are connected.

3:32-34

Connector Pins

Pin	Smart Media	MMC/SD	Memory Stick
1	D0/WPSW		
2	D1	WP	
3	D2	CD	
4	D3	MCM0	
5	D4		CD
6	D5		BS
7	D6		SDIO
8	D7		
9	LV0		
10	WE	D0	
11	RE	D1	
12	ALE	D2	
13	CLE	D3	
14	Pusby		
15	CE		
16	WP		
17	WPSW		
18	Ground	Ground	Ground
19	Power		
20		Power	Power
21		CLK	MCLK

FIG. 4

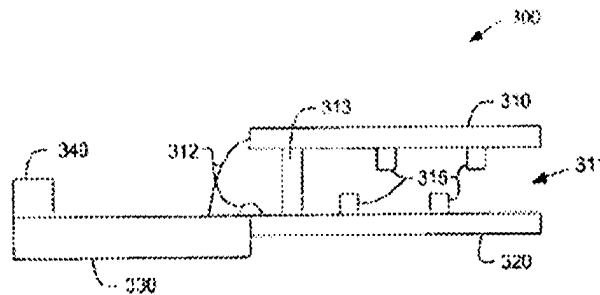
means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.

The mapping of connector pins to contact pins is illustrated in Fig. 4. 5:23-54. The signals are differentiated on these lines depending on type of card inserted by controller chip 231. 5:51-54.

2. (Original) Apparatus comprising:

a housing having a port and a surface;

See, e.g., Fig. 3, planar members 310, 320.² These have surfaces and provide a port 311. See, 4:59-64.



a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;

See, e.g., Fig. 3, contacts 315. The contact pins “electrically couple” to corresponding contacts on a media card inserted. 4:63-64. The respective card types and the contacts they interface with are described at 2:9-16.

² The citations are to the issued patent. The specification US’369 was unamended from Application US’966.

a set of signal lines connected to a controller;

Fig. 4 is a table of the connector pins (left column) and the contact pins to which they are connected.

3:32-34 The connector pins are connected to controller 231. 5:49-54.

Connector Pins

Pin	Smart Media	MMC/SD	Memory Stick
1	CS/WPSW		
2	D1	-WP	
3	D2	-CD	
4	D3	MCMO	
5	D4		-CD
6	D5		BS
7	D6		SDIO
8	D7		
9	LVDS		
10	-WE	D0	
11	-RE	D1	
12	-ALE	D2	
13	-CLE	D3	
14	Procy		
15	CE		
16	-WP		
17	-WPSW		
18	Ground	Ground	Ground
19	Power		
20		Power	Power
21		CLK	MCLK

FIG. 4

interconnection means connecting said signal lines to said one or more contact pins; and

Fig. 3 Interconnects 312. 5:15-17.

means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the

identification of the type of memory card inserted into said port.

Controller 231. 5:49-54.

3. (Original) Apparatus according to claim 2 where said **means for mapping comprises a controller determining the type of memory card inserted into said port.**

Controller 231. 5:49-54. Also Figs. 4A-4D and associated description, 5-61-7:33, of incorporated-by-reference Application No. 09/610,904, now US 6,438,638.

4. (Original) Apparatus according to claim 2 wherein **said interconnection means is selected from a group consisting of simple wires, flat cables, printed circuit board interconnections, or wiring traces.**

Fig. 5 of incorporated-by-reference Application No. 09/610,904, now US 6,438,638, is a table of connector-contact pin mappings similar to Fig. 4 of US'369. The connections between the connector pins and the contact pins "smaller interfaces" are described to be "simple wiring such as individual wires, flat cables, printed-circuit board (PCB), or wiring traces can be used." 7:35-43.

5. (Original) Apparatus according to claim 4 wherein **said the number of said signal lines is fewer than then number of contact pins.**

Twenty-one connector pins accommodate the larger number of pins for the four types of memory cards connected to the connector pins. 5:23-28.

The claim limitations of at least claims 1 and 2 are in additionally disclosed, either expressly or inherently, in US Application No. 09/610,904, now US 6,438,638.

1. (Original) Apparatus comprising:

a housing having a surface;

Figs. 3A and 3B, and 6, 7, and 9 illustrate housings that accept MMC, SD, SmartMedia and Memory Stick Flash cards. The openings that accept the sundry flash cards are described as slots. E.g., 4:45-64. The figures illustrate contacts on the facing side of the respective cards. These are described to interface with the memory cards through pins. 6:1-4.

While “surface” is not described in so many words, a surface is inherent in the described slots that hold pins to interface with facing memory card contacts.

a set of contact pins mounted on said surface and adapted to interface with the electrical contacts of a plurality of different types of memory media cards;

See above for slots and pins. Additionally, Figs. 3A, 3B and 6, 7 and 9 all show that two types of memory cards, MMC and SD, 26 and 28 respectively, connect to the same slot, 32 or 64, depending on the embodiment.

a set of signal lines connected to said contact pins;

Fig. 5 is a table similar to Fig. 4 of US’369. The connections between the connector pins and the contact pins “smaller interfaces” are described to be “simple wiring such as individual wires, flat cables, printed-circuit board (PCB), or wiring traces can be used.” 7:35-43

means for mapping power, ground or data signals to at least one of said contact pins depending upon the type of memory card connected to said at least one contact pin.

Fig. 5 generally shows the mapping depending upon card type. Additionally, the serial data signals to connector 64 that accept either MMC or SD cards are mapped depending on what type of card is inserted, MMC which had in 2000 only one bit serial (see, e.g., Fig. 5) or the SD card which had at the time a 4-bit serial mode (and a CRC). The mapping is done by shifter 98, Fig. 10, which has two modes: one-bit and word for each clock cycle. 11:6-13.

2. (Original) Apparatus comprising:

a housing having a port and a surface;

See above for the first element of claim 1. The slots inherently have a port for accepting the memory cards.

a plurality of sets of contact pins mounted on said surface at locations adapted to interface with the electrical contacts of a plurality of different type memory media cards when inserted into said port;

See above for contact pins generally. As well, adapters 32 and 64 accept two different card types, MMC and SD, 26 and 28 respectively. The MMC card had in 2000 7 contact pins. The SD card 9. Both cards were accommodated in the same slot requiring two sets of contact pins, even if one set were shared between two cards.

a set of signal lines connected to a controller;

See above, and Figs. 3B, 6, 7, and 9. The controller 40 is shown connected to the various slots via signal lines.

interconnection means connecting said signal lines to said one or more contact pins; and

See above, especially at 7:35-43. Additionally, Fig. 3b illustrated the interconnector 44 the pin mappings of which are illustrated in Fig. 5. 5:38-40. Also, Figs. 6, 7 and 9 illustrate connectors such as 64 that accept the MMC or SD memory cards.

means for mapping power, ground or data signals between said signal lines and said contact pins depending upon the identification of the type of memory card inserted into said port.

See above from claim 1.

All claims are fully supported and described in US'369. At least claims 1 and 2 are fully supported in US'638, albeit, inherently in the case of describing the surfaces and contacts. However, a showing of prior invention, which is available to applicants with respect to Hung-Ju does not require fully written description support required by Section 112, paragraph 1.

Claims 2-5 depend from allowable independent claims.

Applicants respectfully submit that the claims are sufficiently supported in US'369 and US'638 to remove Hung-Ju as a reference.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

June 9, 2009

Date

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PTO/SB/06 (07-06)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 12/189,725		Filing Date 08/11/2008		<input type="checkbox"/> To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)		SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)				
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A		N/A					
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A		N/A					
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A		N/A					
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=	OR	X \$	=			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=			
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL				
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT	06/09/2009	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 5	Minus	** 20	= 0	X \$	=	OR	X \$52=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0	X \$	=	OR	X \$220=	0
<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0
(Column 1)			(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=	OR	X \$	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=	OR	X \$	=
<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>										

Legal Instrument Examiner:
/LINDA A. WASHINGTON/

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